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On the PARIS STREET IMPROVEMENTS, and their COST. By
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[Read in Section (F), British Association, at Newcastle-on-Tyne, August, 1863.]

THE improvements that have lately been effected in the streets of Paris are of so very extraordinary a character, and they have given rise to the promulgation of such singular opinions as to their results, that I have been induced to look into the question somewhat closely. I have always held that the making of a new street, in the heart of a city, was an operation that must be attended with a positive loss to the body undertaking it; in some cases amounting to as much as 60 per cent. of the capital employed in it; and I was therefore anxious to discover, if possible the result of our French neighbours' experience in the matter. It is said that they "manage these things better in France, than with ourselves;" and that, in the Rue de Rivoli, for instance, the works of street improvement had been accomplished with profit; it became then a matter of interest to endeavour to discover the facts of the case, and I therefore took measures to ascertain the cost of the new streets from the official reports. My examination has led to a confirmation of my opinion, and to the belief that the improvements of Paris have cost at least the proportion that I have named; and instead of having yielded a profit, the recent alterations have in all cases proved to be a source of very considerable loss.

The great operations in Paris began in the year 1848, by the works which have been undertaken for the purpose of continuing the Palace of the Tuilleries, to the Louvre; which was subsequently extended to the disengagement of the Hotel de Ville, and the continuation of the Rue de Rivoli, to the prolongation of the Rue St. Antoine. This was a very necessary improvement; for the streets which were demolished had, in 1848, been the stronghold of the insurrections that marked the year; and they were so close to the public buildings named, that the latter were always in danger of being seized by the mob, when there was any disturbance. In addition to this strategetical motive, there was the consideration that Paris wanted ventilation in this direction, and that the communication from the east to the west would be immeasurably benefited by the new street; but if this circumstance gave the

Note.—In the original paper the money values were expressed in *frances*, these have been changed into pounds sterling at the rate of 25 frs. = 1*l*.

promise that the benefit of the operation would be great, it also entailed upon the city several necessities, which I shall have occasion to revert to hereafter. In the meantime, the movement was given to pulling down of houses, and rebuilding them in a more magnificent style; the Boulevard Sebastopol was undertaken, the Halles Centrales were begun; the Boulevards St. Germain, de Prince Eugène, des Ecoles, de Malesherbes, de St. Michel, &c., were in turn commenced; the Rue de Rouen, the opening of the new quarter de l'Opera, the remodification of the Chaussée d'Antin and Rue Basse du Rempart, the prolongation of the Boulevard from the Opera to the Théâtre Français, &c.; were all decided upon, and they were all commenced. The State intervened in the various cases, with a subvention that varied in amount from one half to one third of the cost; and it has always proved itself anxious to contribute to the embellishments of the city. It has from time to time authorized the town to contract loans to the amount of 7,200,000*l.* up to the close of the financial year 1861; and has facilitated this employment of public credit in every way that it could; it even would appear from the statement by the Prefect that it had paid, upon the operations then ascertained to have been effected, the total sum of 1,620,000*l.* There was no occasion, however, for the strict account being made up between the city and the state; for the works of the Bois de Boulogne, the Parc de Monceaux and the Bois de Vincennes, had also to be included in the sums that the Crown would have eventually to give credit for; the proceeds of the sale of the waste land, and of the building materials, also were added to the resources which the authorities of Paris could dispose of in the mean time. The works of demolition and re-construction, therefore, have proceeded with a vigour that has passed belief, and the city of Paris has been changed with a rapidity that we, Englishmen, can have no conception of.

There is indeed something that is very remarkable in the steps by which Paris has been brought to its present state, and they do, indeed, savour strongly of magic. The broad straight boulevards, the numerous places and squares provided from distance to distance for the comfort and recreation of the people, the various places formed for their promenade in the Bois de Boulogne, the Parc de Monceaux, and the Bois de Vincennes—all testify in the highest manner to the anxious care with which the Administration provides for the wants of those committed to its charge. In the Prefect's Report, there also appear the accounts of the city of Paris for the repairing, and the decoration of the churches, and the public buildings, that fall to the care of the Municipality; and they are, it must be confessed, maintained in a better state than similar buildings are by the English authorities. But the question arises,

in spite of ourselves—how is all this outlay to be met? M. Ferdinand de Laysterie said, in 1861, that the city of Paris had incurred liabilities, by the decision of the Juries, to the extent of 12,840,000*l.*; and that the liabilities of the city were far from being limited to that sum. The liabilities seem to go on increasing from year to year; the resources do not seem to increase in the same manner, and though the credit of Paris be good, a too frequent recourse to that means of meeting the demands upon it, seems a doubtful course. The reasons why these questions occur so forcibly to my mind are, that I am convinced that every one of the improvements must be a source of outlay to the city, and it cannot go on in this manner adding indefinitely to its obligations; nor can the state continue to augment the public burthens for the sake of the dwellers in Paris. The nature, and extent, of the claims upon Paris for the expense of the improvements will be best judged of by the inspection of the returns; but these it must be observed are but a small part of the obligations of Paris in the matter. Indeed it is hard to discover, in the returns that are submitted to the town council, anything like a clear statement of the cost of any one of these operations; for they spread over so long a time, and they are so complicated in themselves, that it is not easy to arrive at any correct result from their examination. Nevertheless, the results of the operations of the Halles Centrales, the prolongation of the Rue de Rivoli, and the Boulevard Sebastopol on the right bank of the Seine, are already sufficiently known to enable us to reason upon their results with something like certainty.

The Halles Centrales gave rise to an outlay that was in itself purely commercial, and it would be fairer to compare the cost of that operation with the similar one undertaken by the Corporation of London in the removal of the Fleet Market. However, the cost, and the returns, of the Halles Centrales appear in the Prefect's Returns as follows :

<i>Dr.</i>	<i>Halles Centrales.</i>		<i>Cr.</i>
	£		£
Sale of old materials	15,569	Land	780,955
„ spare lands.....	118,140	Reconstruction of houses ...	6,315
Divers products	18,949	Buildings.....	458,561
Properties unsold at 33 yrs. } purchase on 3,523 <i>l.</i> }	116,266	Roads, &c.	21,426
		Square of Innocents, and } Fountain of Nymphs.... }	4,592
	268,922		
Loss on this operation	1,002,927		
	<u>1,271,849</u>		<u>1,271,849</u>

The returns of the Rue de Rivoli are given somewhat more in detail, because the State has intervened in very different proportions

in certain parts of the work ; thus the accounts of the creditor side appear to be—

	£
1st Operation at the sole expense of the town from the Place du Louvre to the Hotel de Ville, including the opening for the Square of St. Jacques la Boucherie—	
Purchase of land	1,464,234
Making roadway	61,065
Lowering the bridge of Notre Dame.....	57,595
Restoration of the tower of St. Jacques la Boucherie....	33,155
	1,616,049
2nd Operation, at equal cost of the State and the town—	
Purchase of land	692,651
Making of roadway	4,129
	696,780
3rd Operation, at two-thirds of the whole cost on account of the State, one-third at that of the town—	
Purchase of land	867,450
Making of roadways	23,665
Levelling the Place du Carrousel	8,398
	899,513
4th Operation, at the cost of one-third for the State, and two-thirds for the town—	
Purchase of land	1,073,353
Making roadways	37,795
Construction of two houses at the corner of Avenue } Victoria.....	22,659
Indemnity or damages, 140 <i>l.</i> added to No. 1	1,133,947
Total	4,346,289
The products realized from the sale of the surplus land, &c. were, for the 1st Operation—	
Sale of old materials	45,176
„ surplus lands	224,957
„ divers products	10,476
	280,609
Properties unsold, 1,733 <i>l.</i> , at 33 years' purchase.....	57,190
	377,803
For the 2nd Operation—	
Sale of old materials	25,544
„ land	124,137
Divers products	1,154
	150,835
Properties unsold, 2,252 <i>l.</i> , at 33 years' purchase	74,313
	225,148

For the 3rd Operation—	£
Sale of old materials	20,476
„ spare land	227,812
Divers products	26,957
	275,245
Properties unsold, 5,634 <i>l.</i> , at 33 years' purchase	185,921
	461,166
For the 4th Operation—	
Sale of old materials	36,320
„ spare land	145,539
Divers products	20,583
	202,442
Properties unsold, 847 <i>l.</i> , at 33 years' purchase	26,768
	229,210
Total	1,293,327

Thus the street has cost the total sum of 4,346,320*l.* nearly, and it has brought in the sum of 1,293,328*l.*; or the total loss upon this operation, supposing it to have been executed at the sole expense of the city, would be about 68·57 per cent.; and it is to be observed, that in order to make the returns as high as possible, I have estimated the whole of the properties unsold *at 33 years' purchase* of the gross rental received from them, without any deduction for the cost of collection, the maintenance in order of the properties, &c. The sum that the State will have to pay will of course depend upon the receipts, after the whole of the property shall have been realized; but if we assume it to be as I have stated, it will be about as follows:—

	£	£	£
For the 2nd Operation	(696,780 — 225,148) ÷ 2 =	235,816	
„ 3rd „	(899,513 — 461,166) ÷ $\frac{2}{3}$ =	292,231	
„ 4th „	(1,133,948 — 229,209) ÷ $\frac{1}{3}$ =	301,579	
Total		829,626	
Added to the sum derived as above		1,293,327	
Making a total of		2,122,953	

This would reduce the cost of the Rue de Rivoli to about 50 per cent. of the gross outlay, leaving out of account the interest of the sums paid in the course of the operation.

The reconstruction of the Boulevard Sebastopol has given rise to very nearly the same result; for we find that it has been driven through the densely peopled parts of the town, between the Rue de Faubourg St. Martin and St. Denis, and so on to the Place du

Châtelet. There have been reserved great spaces at the station of the Strasbourg Railway, at the Conservatoire des Arts et Métiers, and at the point of junction with the Place du Châtelet; and throughout the length of the street it has been established of the width that is considered to be necessary for the principal thoroughfares of Paris. This is equivalent to saying that the width is rather exaggerated, and that the aspect of the street is throughout its length, *monumental*. We find its cost to have been as follows:—

£	
Land purchased, one-third on account of the State, } and two-thirds on account of the town.....	2,172,936
Works of roadways ditto	97,958
Buildings	6,596
Rectification of Cysis of St. Leu	6,361
Inauguration of Boulevard.....	2,812
Paid to the Caisse des Travaux	60,000
	2,346,663
Products—	
Sale of old materials	127,517
Re-sale of land.....	722,451
Divers products	61,278
	911,246
Properties unsold, 1,331 <i>l.</i> , on 33 years' purchase.....	43,931
	955,177
	<u>1,391,486</u>

The total would make the town a loser by this particular operation of about 60 per cent.; and as the State supports one-third of the loss on it, the city proportion is about 927,154*l.*; or it must content itself with a loss of about 40 per cent. on the gross outlay for the street, whilst shifting the burthen of the extra 20 per cent. on to the general taxpayers of the country. The accounts for the other works are not yet made up in detail, for the works upon them are now proceeding; but there seems to be every reason to suspect that they will present similar results to the above; for they have been conducted on precisely the same principles, and the same disregard to economical conditions as the streets already examined.

For instance, in the works undertaken of late upon the line of the Boulevard Malesherbes, the width that was thrown out, on each side of the roadway, was made just the width of one house on each side, beyond that which was required for the road itself. Beyond that point the streets, on both sides, are left at their natural level, and they are sometimes as much as 20 or 30 feet above the surface of the boulevard, that is supposed to give access to them. There are the same great spaces left for air, and the enjoyment of the open

streets, as we have seen to be the case with the Boulevard Sebastopol, and the Rue de Rivoli; and the communications are evidently designed for a great city, and for the capital of the arts. They have, however, been designed without reference to the wants of the locality, and they must give rise to still greater expense than has yet been incurred, before they can be made to serve the purposes for which they were intended. In the case of the Rue de Rivoli, there might have been some excuse for the levelling of the side streets; for emphatically that was the leading thoroughfare through Paris, and it serves to place in connection with one another the Tuilleries, the Louvre, and the Hotel de Ville; and the Caserne Napoleon may also claim to be considered as a part of the plan; but what could have been the motive for placing the streets abutting upon the Boulevard Malesherbes at such a disadvantage, as they now are, must always be a mystery. The same thing may be said of the Boulevard de Sebastopol, on the left bank of the Seine, for the levels of the abutting streets have also in many cases to be greatly altered, and the open places near the Palais des Fermes, and the Hotel Clugny, are strangely different from the levels of the great lines of communication. In fact, the principle that seems to have been adopted in designing the works of these Boulevards has been to fix the levels of the two extreme points, and to make the surface of the ground between them on one uniform inclination. This produces great regularity, no doubt, but the sacrifice for the sake of this is enormous; such as, in fact, we can hardly suppose to have been undertaken by a municipality, elected by the general body of the ratepayers.

I alluded in the previous part of this paper to the extraordinary conditions that prevailed in the Rue de Rivoli, that made the operation of driving that street more than usually expensive; and I think the present a good opportunity for recurring to them. In the first place, the houses that were pulled down were densely peopled; they were built in close proximity to one another, like the houses that were in the heart of the city, and in the very centre of business; they were built, of course, upon all the errors of a Mediæval town without regard to hygiene, but with regard to making the most of the surface. The new street was, as was before stated, meant to constitute the main artery of thoroughfare; it was intended to form the line of communication between the various public buildings that it encountered; so that the width of the new street was necessarily very large. There were in its length a number of large open spaces for the disentanglement of the public buildings, such as the Colonnade of the Louvre, the Tower of St. Jacques la Boucherie, the Hotel de Ville, and in front of the Palais Royale; all of which were, in so many words, drawbacks upon the success of the operation, by reason

of the spaces of ground they rendered if necessary to abandon. More than half the ground on one side of the Rue de Rivoli has thus been ceded to the public; and if the city, with even this sacrifice, has been able to achieve the street, at a gross outlay upon the expense, equal to about 70 per cent. (exactly 68·57), it must be considered to have conducted its operations very skilfully, and very well.

I endeavoured some time since to obtain a return from the House of Commons, for the purpose of forming some opinion on the subject of the cost of such works in London, but their replies to my questions were made in the usual style, that is to say, they were contained in a mass of figures so grouped that nothing could be extracted from them. All that I have been enabled to derive from them is, that the new Cannon Street cost a gross sum of 589,470*l.*, or at the rate of 506*l.* per yard forward; the new Victoria Street cost 330,675*l.*, or about 300*l.*, per yard forward; but I have not been able to ascertain the proportion the city authorities got back upon those sums by the sale of the ground rents. My own experience in these matters is, however, very considerable, and it has led me to the belief that, unless there be some very exceptional cases, the operation of converting inhabited house rent into ground rent—which is the real meaning of the operation of pulling down houses and re-building them, on the assumption that they are parts of town improvements—must always result in loss to those undertaking it. When, as in Paris, wide, straight boulevards are substituted for narrow, confined streets; when there are, moreover, great places provided for the recreation of the public, it is not at all astonishing that the expense is at the rate of 70 per cent. on the outlay. The state has come to the assistance of the city in this matter; but it can only be by casting the burthen upon the tax payers of the country generally—a course which may be tolerated in a highly centralized country, like France, where, in fact, Paris is everything, and the rest of the nation nothing in comparison with it—but which would hardly be tolerated in England, where we pride ourselves on making every place pay for its own improvements.

Before quitting the subject, it may be as well to say that the expenses of the city of Paris are defrayed by a set of receipts that usually figure in the budget presented by the Prefect under the name of “*recettes ordinaires*,” a set called the “*recettes extraordinaires*,” the “*recettes supplémentaires*,” and the “*recettes sur fonds spéciaux*.” The *recettes ordinaires* are made up of the—

	£
Centimes communaux	107,724
Octroi	3,090,283
Escort of merchandise	3,275
Fines (in octroi).....	7,681
Octroi on gas	50,699
Halles et marchés	178,545
Location of places in markets	86,551
Ditto in markets outside Barrières	16,120
Weighing and measuring	29,625
Voirie	21,620
Waterworks	146,246
Abattoirs.....	85,855
Entrepôts	16,717
Paid for standing room, &c., cabs, stalls	106,219
Communal properties, rents of.....	23,653
Expeditions d'actes	5,080
Burials and proceeds of cemeteries	47,837
Exploitation des voiries (working of cesspools, &c.).....	20,051
Frais d'éclairage, sweeping markets, contributions of } proprietors to works of streets, &c., &c., legacies }	337,782
Drivers' receipts (tax on dogs, &c.)	108,107
Tax upon burials omitted	4,489,670
Extraordinary receipts of ordinary budget....	11,802
Extraordinary tax on the territories united to Paris.....	4,501,472
Produce of sale of property	9,340
Ditto of divers property	26,376
Contributions and payment of State	15,071
Total of ordinary budget	245,152
Receipts called "extraordinary," "supplementary," and "fonds spéciaux"—	
Proceeds of loan	4,797,411
Sale of land beyond lines of street	1,953,008
Rents of properties unsold	154,322
Divers products	14,834
Balance of last year's accounts.....	503
Interest upon funds at bank.....	1,072,209
Total of extraordinary receipts, &c.	7,992,287

This would appear to show that the ordinary budget of the city of Paris amounted to about $4\frac{1}{2}$ millions sterling, for which the town, it must be observed, does much that we leave to be done by private companies or by individuals; as, for instance, the abattoirs, cemeteries, waterworks, &c. The latter branch of the service is discharged in a most disgraceful manner; though the fountains play in every street, the house service is neglected, and water is bought

by the pail. It is not my purpose, however, to enter into a comparison of the systems adopted in the two countries, it would require too long a time, and would lead into far too great discussion, touching as the question does on the whole social relations of the population. It may suffice to say that out of the sum of four millions and a half raised yearly, the city of Paris has to pay the interest on the sums borrowed, and the expenses of watching, lighting, paving, sewerage and watering the city; and when we reflect that the revenue is principally made up of personal contributions, we may easily conceive that the cost of raising it must be enormous. The interest upon the funded debts of the city, at present, is about 421,871*l.*, an insignificant sum, perhaps, for the two millions of inhabitants of Paris: but it will begin to tell rapidly upon the productive industry of the locality if it be not watched carefully, and checked in its gradual and steady increase. The credit of the city, as was before said, stands very high, but it will suffice for a few more operations, such as the Boulevard Malesherbes, to compromise it very severely.

I may be allowed to say that the *comptes généraux* presented by the prefect to the town council are models of public accounts. They are clear and distinct—difficult of course to understand at first, like all such documents; but they contain all the elements for an analysis of the separate accounts, such as I have endeavoured to lay before you. I could not have obtained these documents without the kind co-operation of his Excellency Lord Cowley, who facilitated my inquiries by every means in his power, and to whom I tender my sincerest acknowledgments. The Prefect of the Seine, Baron Haussman, I may also add, displayed the greatest politeness in answering my questions and obtaining for me any document I required.
